

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-7. (Canceled)

8. (Currently Amended) A power steering apparatus according to claim 7, wherein the material satisfies the following relationships: An electrically driven power steering apparatus comprising:

a motor;

a moving shaft to which an assistive steering force is inputted from the motor, and which is reciprocally movable within a range restricted by a housing in order to steer wheels;

an input shaft connected to a steering wheel;

a power transmission mechanism which connects the input shaft with the moving shaft in a power transmissible manner; and

an absorbing member which is attached to one of the moving shaft and the housing, and is brought into contact with an abutment portion disposed on the other of the moving

shaft and the housing to absorb an impact at an end of the reciprocal movement of the moving shaft;

wherein the absorbing member comprises a material selected to satisfy the following relationships:

$$200 \leq \sigma/\varepsilon \leq 666 \text{ (Mpa)}$$

$$0.2 \leq \varepsilon \leq 0.3$$

$$\sigma/\varepsilon = F/(S \cdot \varepsilon)$$

$$30,000 \leq F \leq 40,000 \text{ (N)}$$

$$3 \times 10^{-4} \leq S \leq 5 \times 10^{-4} \text{ (m}^2\text{)}$$

where σ is compressive stress, ε is strain, F is compressive load (N), and S is compressed area (m^2).

9. (Canceled)

10. (Previously Presented) A power steering apparatus according to claim 8, wherein the material of the absorbing member is a polyurethane material.

11. (Canceled)

12. (Currently Amended) A power steering apparatus according to claim 11, wherein the material satisfies the following relationships: An electrically driven power

steering apparatus comprising:

a motor;

a moving shaft to which an assistive steering force is inputted from the motor, and which is reciprocally movable within a range restricted by a housing in order to steer wheels;

an input shaft connected to a steering wheel;

a power transmission mechanism which connects the input shaft with the moving shaft in a power transmissible manner;
and

an absorbing member which is attached to one of the moving shaft and the housing, and is brought into contact with an abutment portion disposed on the other of the moving shaft and the housing to absorb an impact at an end of the reciprocal movement of the moving shaft;

wherein the absorbing member includes a metal member and an elastic member, the metal member has a hole extending in the axial direction, and the elastic member is attached to both ends of the metal member in an axial direction and is connected through the hole in the metal member, the elastic member comprising a material selected to satisfy the following relationships:

$$200 \leq \sigma/\varepsilon \leq 666 \text{ (Mpa)}$$

$$0.2 \leq \varepsilon \leq 0.3$$

$$\sigma/\varepsilon = F/(S \cdot \varepsilon)$$

$$30,000 \leq F \leq 40,000 \text{ (N)}$$

$$3 \times 10^{-4} \leq S \leq 5 \times 10^{-4} \text{ (m}^2\text{)}$$

where σ is compressive stress, ε is strain, F is compressive load (N), and S is compressed area (m^2).

13. (Canceled)

14. (Previously Presented) A power steering apparatus according to claim 12, wherein the material of the elastic member is formed from a polyurethane material.

15. (Canceled)

16. (Currently Amended) A power steering apparatus according to claim 15, wherein the material satisfies the following relationships: An electrically driven power steering apparatus comprising:

a motor;

a moving shaft to which an assistive steering force is inputted from the motor, and which is reciprocally movable within a range restricted by a housing in order to steer wheels;

an input shaft connected to a steering wheel;
a power transmission mechanism which connects the input shaft with the moving shaft in a power transmissible manner;
and

an absorbing member which is attached to one of the moving shaft and the housing, and is brought into contact with an abutment portion disposed on the other of the moving shaft and the housing to absorb an impact at an end of the reciprocal movement of the moving shaft;

wherein the absorbing member includes a metal member and an elastic member, and the elastic member has portions disposed at least at one of both end faces of the metal member in an axial direction, and between the metal member and the moving member, the elastic member comprising a material selected to satisfy the following relationships:

$$200 \leq \sigma/\varepsilon \leq 666 \text{ (Mpa)}$$

$$0.2 \leq \varepsilon \leq 0.3$$

$$\sigma/\varepsilon = F/(S \cdot \varepsilon)$$

$$30,000 \leq F \leq 40,000 \text{ (N)}$$

$$3 \times 10^{-4} \leq S \leq 5 \times 10^{-4} \text{ (m}^2\text{)}$$

where σ is compressive stress, ε is strain, F is compressive load (N), and S is compressed area (m^2).

18. (Previously Presented) A power steering apparatus according to claim 16, wherein the material of elastic member is a polyurethane material.

19. (New) An electrically driven power steering apparatus comprising:

a motor;

a moving shaft to which an assistive steering force is inputted from the motor, and which is reciprocally movable within a range restricted by a housing in order to steer wheels;

an input shaft connected to a steering wheel;

a power transmission mechanism which connects the input shaft with the moving shaft in a power transmissible manner; and

an absorbing member which is attached to the moving shaft, and is brought into contact with an abutment portion disposed on the housing to absorb an impact at an end of the reciprocal movement of the moving shaft;

wherein the absorbing member includes a metal member and an elastic member formed from a resin or a rubber; and

wherein the elastic member is brought into contact with the abutment portion of the housing to absorb an impact at the end of the reciprocal movement, and has a portion which

is disposed between an inner periphery of the metal member and an outer periphery of the moving shaft, and which abuts the outer periphery along an entire axial length of the inner periphery of the metal member.

20. (New) A power steering apparatus according to claim 19, wherein the elastic member comprises a material selected to satisfy the following relationships:

$$200 \leq \sigma/\varepsilon \leq 666 \text{ (Mpa)}$$

$$0.2 \leq \varepsilon \leq 0.3$$

$$\sigma/\varepsilon = F/(S \cdot \varepsilon)$$

$$30,000 \leq F \leq 40,000 \text{ (N)}$$

$$3 \times 10^{-4} \leq S \leq 5 \times 10^{-4} \text{ (m}^2\text{)},$$

where σ is compressive stress, ε is strain, F is compressive load (N), and S is compressed area (m^2).

21. (New) A power steering apparatus according to claim 20, wherein the material of the elastic member is formed from a polyurethane material.

22. (New) A power steering apparatus according to claim 12, wherein the absorbing member is attached to the moving shaft, and the absorbing member and elastic member are brought into contact with the abutment portion of the

housing to absorb an impact at the end of the reciprocal movement; and

wherein the elastic member has a portion disposed between an inner periphery of the metal member and an outer periphery of the moving shaft and abuts the outer periphery along an entire axial length of the inner periphery of the metal member.

23. (New) A power steering apparatus according to claim 16, wherein the absorbing member is attached to the moving shaft, and the absorbing member and elastic member are brought into contact with the abutment portion of the housing to absorb an impact at the end of the reciprocal movement; and

wherein the elastic member has a portion disposed between an inner periphery of the metal member and an outer periphery of the moving shaft and abuts the outer periphery along an entire axial length of the inner periphery of the metal member.